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10/759,568

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EXAMINER

LOWE, MICHAEL S

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/759,568

Applicant(s)

JOHNSON ET AL.

Examiner

M. Scott Lowe

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19, 20 is/are rejected.
- 7) ☒ Claim(s) 14-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/20/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Information Disclosure Statement***

Document "US-4,069,956" was lined thru since it had nothing to do with the invention. It was assumed that applicant meant "US-4,096,956" instead; this document has been placed on the attached "References Cited" form.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4,10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, line 4, in is unclear what the term "which" refers to (the body or compartment). For sake of examination it was assumed applicant meant "which" to refer to "the body".

In claim 10, line 12, in is unclear what the term "which" refers to. For sake of examination it was assumed applicant meant "which" to refer to "the body".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, are rejected under 35 U.S.C. 102(b) as being anticipated by

Schonrock (US 2,836,316).

Re claim 1, Schonrock teaches a body for a refuse collection vehicle

10 having a frame, said body composing:

(a) a hopper compartment 24 mounted on the frame and having:

(i) a pair of opposing sidewalls defining a hopper compartment width;

(ii) a closed forward end;

(iii) an open rear end; and

(iv) a hopper compartment floor (not numbered) at a first level;

(b) a storage compartment 14 mounted on the frame adjacent to and to the rear of the hopper compartment 24, said storage compartment having:

(i) a pair of opposing sidewalls defining a storage compartment width;

(ii) a forward end that opens into the hopper compartment;

(iii) a rear end having a tailgate 22 mounted thereon; and

(iv) a storage compartment floor (not numbered) at a second level, said second level being raised above the first level;

(c) a transition floor (not numbered) between the hopper compartment floor at the first level and the storage compartment floor at the second level;

(d) a crusher panel 32 (54,60) that is adapted to apply a downwardly directed compressive force to refuse material in the hopper compartment and to sweep said refuse material from the hopper compartment into the storage compartment;

(e) means 20 for removing refuse material from the storage compartment.

Re claims 2,3, Schonrock teaches the crusher panel has a pivot end (not numbered) and a sweep end (not numbered), said pivot end being pivotally mounted so that said crusher panel may be pivoted about a crusher pivot axis at its pivot end between a first orientation in which the sweep end is generally disposed above the pivot end and a second orientation in which the sweep end is adjacent to the storage compartment floor.

Re claim 4, Schonrock teaches the body:

(a) wherein the crusher panel is mounted adjacent to the rear end of the hopper compartment 24;

(b) which includes means for pivoting the crusher panel about the crusher pivot axis between said first orientation and said second orientation to apply a downwardly directed compressive force to refuse material in the hopper compartment 24, and to sweep said refuse material from the hopper compartment into the storage compartment 14.

Re claim 5, Schonrock teaches the means for pivoting the crusher panel about the crusher pivot axis comprises:

(a) a crusher panel actuator (not numbered); and

(b) an attachment mechanism (90,84, etc.) for attaching one end of the crusher panel actuator to the crusher panel, said mechanism comprising a linkage system (90,84, etc.) that permits the crusher panel to pivot between the first orientation and the second orientation through an arc of about 250 degrees.

Re claim 6, Pruteanu teaches a reciprocating packer (60, part of crusher) that mounted in the forward end of the hopper compartment 24 and is adapted to move refuse from the forward end of the hopper compartment towards the rear end of the hopper compartment so that it may be compacted and swept by the crusher panel, which reciprocating packer comprises:

Re claim 7, Schonrock teaches means 20 for removing refuse material from the storage compartment comprising a hoist that is adapted to raise the forward end of the storage compartment above the rear end thereof.

Re claim 8, Schonrock teaches the hoist adapted to raise the forward end of the storage compartment 14 so that the storage compartment floor is generally disposed at an angle of no more than about 35 degrees from the horizontal.

Claims 1-6, 9,10, are rejected under 35 U.S.C. 102(e) as being anticipated by Pruteanu (US 7,070,382).

Re claim 1, Pruteanu teaches a body for a refuse collection vehicle 20 having a frame, said body composing:

(a) a hopper compartment 24 mounted on the frame and having:

- (i) a pair of opposing sidewalls defining a hopper compartment width;
  - (ii) a closed forward end;
  - (iii) an open rear end; and
  - (iv) a hopper compartment floor (not numbered) at a first level;
- (b) a storage compartment 22 mounted on the frame adjacent to and to the rear of the hopper compartment 24, said storage compartment having:
- (i) a pair of opposing sidewalls defining a storage compartment width;
  - (ii) a forward end that opens into the hopper compartment;
  - (iii) a rear end having a tailgate 32 mounted thereon; and
  - (iv) a storage compartment floor (not numbered) at a second level, said second level being raised above the first level;
- (c) a transition floor (floor of 64) between the hopper compartment floor at the first level and the storage compartment floor at the second level;
- (d) a crusher panel 46 that is adapted to apply a downwardly directed compressive force to refuse material in the hopper compartment and to sweep said refuse material from the hopper compartment into the storage compartment;
- (e) means 40 for removing refuse material from the storage compartment.

Re claim 2, Pruteanu teaches the crusher panel 46 has a pivot end (not numbered) and a sweep end (not numbered), said pivot end being pivotally mounted so that said crusher panel may be pivoted about a crusher pivot axis at its pivot end between a first orientation in which the sweep end is generally disposed above the pivot

end and a second orientation in which the sweep end is adjacent to the storage compartment floor.

Re claim 3, Pruteanu teaches the transition floor (floor of 64) diverges away from the sweep end of the crusher panel 46 as the sweep end of the crusher panel approaches the storage component floor during pivoting of the crusher panel.

Re claim 4, Pruteanu teaches the body:

- (a) wherein the crusher panel 46 is mounted adjacent to the rear end of the hopper compartment 24;
- (b) which includes means 90 for pivoting the crusher panel 46 about the crusher pivot axis between said first orientation and said second orientation to apply a downwardly directed compressive force to refuse material in the hopper compartment 24, and to sweep said refuse material from the hopper compartment into the storage compartment 22.

Re claim 5, Pruteanu teaches the means for pivoting the crusher panel about the crusher pivot axis comprises:

- (a) a crusher panel actuator 90; and
- (b) an attachment mechanism 92,94,100,102 for attaching one end of the crusher panel actuator 90 to the crusher panel 46, said mechanism comprising a linkage system 92,94,100,102 that permits the crusher panel to pivot between the first orientation and the second orientation through an arc of about 250 degrees.

Re claim 6, Pruteanu teaches a reciprocating packer 50 that mounted in the forward end of the hopper compartment 24 and is adapted to move refuse from the



forward end of the hopper compartment towards the rear end of the hopper compartment 24 so that it may be compacted and swept by the crusher panel 46, which reciprocating packer comprises:

(a) a packer panel 50;

(b) an actuator 52 that is attached to the packer panel and adapted to move the packer panel between:

a retracted position which is in front of the crusher panel 46 when said crusher panel pivots between the first orientation and the second orientation; and

an extended position which is adjacent to the transition floor (floor of 64).

Re claim 9, Pruteanu teaches the means for removing refuse material from the storage compartment comprises an ejector mechanism (40 and/or 46), which includes:

(a) an ejector panel (40 and/or 46 - claim does not require the ejector and crusher be completely different and separate items), having an upper end and a lower end, said upper end being mounted between the sidewalls of the storage compartment for axial movement between a forward position and a rear position;

(b) means 44 for moving the upper end of the ejector panel between the forward position and the rear position.

Re claim 10, Pruteanu teaches:

(a) wherein the ejector panel 46 is pivotally mounted about an ejector pivot axis at its upper end for pivotal movement between:

(i) a retracted orientation in which the lower end is disposed adjacent to the pivot end of the crusher panel when the ejector panel is in the forward

position; and

(ii) an extended orientation in which the lower end is disposed rearwardly from the retracted position;

(b) wherein the upper end of the ejector panel 46 may be moved between the forward position and the rear position when the ejector panel is in the extended orientation;

(c) which includes an ejector actuator 90,44 that is located and arranged:

(i) to pivot the ejector panel about the ejector pivot axis between the retracted orientation and the extended orientation; and

(ii) to move the upper end of the ejector panel 46 between the forward position and the rear position.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7,8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Pruteanu (US 7,070,382) in view of Schonrock (US 2,836,316).

Re claim 7, Pruteanu does not teach the means for removing refuse material from the storage compartment comprising a hoist that is adapted to raise the forward end of the storage compartment above the rear end thereof. Schonrock teaches means

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20 for removing refuse material from the storage compartment comprising a hoist that is adapted to raise the forward end of the storage compartment above the rear end thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Pruteanu by Schonrock to have means for removing refuse material from the storage compartment comprising a hoist that is adapted to raise the forward end of the storage compartment above the rear end thereof as an equivalent alternative removing means or have it as an additional removing means with ejector 40 in order to allow use of a smaller and less powerful actuator 44 (to increase usable storage space).

Re claim 8, Pruteanu as already modified by Schonrock teaches the hoist adapted to raise the forward end of the storage compartment 22 so that the storage compartment floor is generally disposed at an angle of no more than about 35 degrees from the horizontal.

Claims 1-5,9-13,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gollnick (US 4,260,316) in view of Pruteanu (US 7,070,382).

Re claim 1, Gollnick teaches a body for a refuse collection vehicle having a frame 12, said body composing:

(a) a hopper compartment 18 mounted on the frame and having:

(i) a pair of opposing sidewalls defining a hopper compartment width;

(ii) a closed forward end;

(iii) an open rear end; and

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- (iv) a hopper compartment floor (forward or bottom of 40) at a first level;
- (b) a storage compartment 14 mounted on the frame adjacent to and to the rear of the hopper compartment 24, said storage compartment having:
  - (i) a pair of opposing sidewalls defining a storage compartment width;
  - (ii) a forward end that opens into the hopper compartment;
  - (iii) a rear end having a tailgate 24 mounted thereon; and
  - (iv) a storage compartment floor (30,36,etc.) at a second level, said second level being raised above the first level;
- (c) a transition floor (rearward part of 40) between the hopper compartment floor at the first level and the storage compartment floor at the second level;
- (d) a crusher panel 20 that is adapted to apply a compressive force to refuse material in the hopper compartment and to sweep said refuse material from the hopper compartment into the storage compartment;
- (e) means 16,22 for removing refuse material from the storage compartment.

Gollnick does not clearly state whether the crusher panel applies the force downwardly. Pruteanu teaches a panel 46 that applies a downwardly directed compressive force to refuse material in a hopper compartment 24 and to sweep said refuse material from the hopper compartment into a storage compartment 22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Gollnick by the teaching of Pruteanu to have the crusher panel apply a downwardly directed compressive force to refuse material in a hopper compartment and to sweep said refuse material from the hopper compartment into a storage compartment

by having the panel sweep a more forwardly rotated angle in order to be able to sweep more material from the hopper.

Re claim 2, Gollnick teaches the crusher panel 20 has a pivot end (not numbered) and a sweep end (not numbered), said pivot end being pivotally mounted so that said crusher panel may be pivoted about a crusher pivot axis at its pivot end between a first orientation in which the sweep end is generally disposed above the pivot end and a second orientation in which the sweep end is adjacent to the storage compartment floor.

Re claim 3, Gollnick teaches the transition floor (not numbered) diverges away from the sweep end of the crusher panel 20 as the sweep end of the crusher panel approaches the storage component floor during pivoting of the crusher panel.

Re claim 4, Gollnick teaches the body:

- (a) wherein the crusher panel 20 is mounted adjacent to the rear end of the hopper compartment 18;
- (b) which includes means 50 for pivoting the crusher panel 20 about the crusher pivot axis between said first orientation and said second orientation to apply a downwardly directed compressive force to refuse material in the hopper compartment 18, and to sweep said refuse material from the hopper compartment into the storage compartment 14.

Re claim 5, Gollnick teaches the means for pivoting the crusher panel about the crusher pivot axis comprises:

- (a) a crusher panel actuator 50; and

(b) an attachment mechanism (50 and pin(s)) for attaching one end of the crusher panel actuator 50 to the crusher panel 20, said mechanism comprising a linkage system (50 and pin(s)) that permits the crusher panel to pivot between the first orientation and the second orientation through an arc of about 250 degrees.

Re claim 9, Gollnick as already modified by Pruteanu teaches the means for removing refuse material from the storage compartment comprises an ejector mechanism 16,22, which includes:

(a) an ejector panel 16,22, having an upper end and a lower end, said upper end being mounted between the sidewalls of the storage compartment for axial movement between a forward position and a rear position;

(b) means 62,80 for moving the upper end of the ejector panel between the forward position and the rear position.

Re claim 10, Gollnick as already modified by Pruteanu teaches:

(a) wherein the ejector panel 22 is pivotally mounted about an ejector pivot axis at its upper end for pivotal movement between:

(i) a retracted orientation in which the lower end is disposed adjacent to the pivot end of the crusher panel when the ejector panel is in the forward position; and

(ii) an extended orientation in which the lower end is disposed rearwardly from the retracted position;

(b) wherein the upper end of the ejector panel 22 may be moved between the forward position and the rear position when the ejector panel is in the extended orientation;

(c) which includes an ejector actuator 62,80 that is located and arranged:

(i) to pivot the ejector panel about the ejector pivot axis between the retracted orientation and the extended orientation; and

(ii) to move the upper end of the ejector panel 22 between the forward position and the rear position.

Re claim 11, Gollnick teaches the crusher panel 20 and the ejector panel 22 (16) are located and arranged so that pivoting of the ejector panel from the retracted orientation to the extended orientation while the crusher panel is in the second orientation will sweep the lower end of the ejector panel across the crusher panel.

Re claim 12, Gollnick teaches the ejector mechanism 16,22 includes an ejector over-center lock (the actuators 62,80 & their standard controls meet this limitation as broadly claimed) that is located and arranged to releasably lock the ejector panel in the extended orientation.

Re claim 13, Gollnick teaches an ejector cylinder drift lock (the actuators 62,80 & their standard controls meet this limitation as broadly claimed) that releasably locks the ejector panel in the retracted orientation.

Re claim 19, Gollnick teaches a body for a refuse collection vehicle having a frame 12, said body composing:

(a) a hopper compartment 18 mounted on the frame and having:

- (i) a pair of opposing sidewalls defining a hopper compartment width;
- (ii) a closed forward end;
- (iii) an open rear end; and
- (iv) a hopper compartment floor (forward or bottom of 40) at a first level;
- (b) a storage compartment 14 mounted on the frame adjacent to and to the rear of the hopper compartment 24, said storage compartment having:
  - (i) a pair of opposing sidewalls defining a storage compartment width;
  - (ii) a forward end that opens into the hopper compartment;
  - (iii) a rear end having a tailgate 24 mounted thereon; and
  - (iv) a storage compartment floor (30,36,etc.) at a second level, said second level being raised above the first level;
- (c) a transition floor (rearward part of 40) between the hopper compartment floor at the first level and the storage compartment floor at the second level;
- (d) a crusher assembly comprising:
  - a header tube (not numbered, pivot of 20) which is mounted between the sidewalls of the hopper compartment above the floor at the first level and adjacent to the transition floor;
  - (ii) a crusher panel 20 having a pivot end and a sweep end, said pivot end being pivotally mounted on the header tube so that said crusher panel may be pivoted about a pivot axis at its upper end between a first orientation in which the sweep end is generally disposed above the pivot end and a second orientation in which the sweep end is adjacent to the storage compartment floor;



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(iii) a crusher panel actuator 50 for pivoting the crusher panel about its pivot axis between said first orientation and said second orientation;  
wherein pivoting said crusher panel between said first orientation and said second orientation while refuse material is in the hopper compartment will cause said crusher panel 20 to:

(iv) apply a directed compressive force to said refuse material in the hopper compartment; and

(v) sweep said refuse material from the hopper compartment into the storage compartment 14;

(e) an ejector panel 16,22 having an upper end and a lower end, said upper end being mounted between the sidewalls of the storage compartment for axial and pivotal movement therein so that:

(i) the ejector panel 22 may be pivoted about an ejector pivot axis at its upper end between a retracted orientation in which the lower end is disposed adjacent to the header tube and an extended orientation in which the lower end is disposed rearwardly from the retracted position;

(ii) the upper end of the ejector panel 22 (16) may be moved axially between a forward position and a rear position;

(f) an ejector actuator 80,62 that is adapted:

(i) to pivot the ejector panel about the ejector pivot axis between the retracted orientation and the extended orientation; and

(ii) to move the upper end of the ejector panel between the forward position and the rear position.

Gollnick does not clearly state whether the crusher panel applies the force downwardly. Pruteanu teaches a panel 46 that applies a downwardly directed compressive force to refuse material in a hopper compartment 24 and to sweep said refuse material from the hopper compartment into a storage compartment 22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Gollnick by the teaching of Pruteanu to have the crusher panel apply a downwardly directed compressive force to refuse material in a hopper compartment and to sweep said refuse material from the hopper compartment into a storage compartment by having the panel sweep a more forwardly rotated angle in order to be able to sweep more material from the hopper.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gollnick (US 4,260,316) in view of Pruteanu (US 7,070,382) as applied to claim 19, and further in view of Smith (US 5,209,537).

Re claim 20, Gollnick does not teach an apparatus for acquiring, lifting and transferring a container so as to deposit the contents of the container in the hopper compartment, said apparatus being mounted on the frame in front of the hopper compartment. Smith teaches an apparatus 30 for acquiring, lifting and transferring a container so as to deposit the contents of the container in the hopper compartment, said apparatus being mounted on the frame in front of the hopper compartment. It would

have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Gollnick by the general teaching of Smith to have an apparatus for acquiring, lifting and transferring a container so as to deposit the contents of the container in the hopper compartment, said apparatus being mounted on the frame in front of the hopper compartment in order to reduce manual labor and thus reduce costs and injuries.

### ***Allowable Subject Matter***

Claims 14-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Weir (US 3,462,031) teaches a similar device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Scott Lowe whose telephone number is (571) 272-6929. The examiner can normally be reached on 6:30am-4:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

msl



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